



Stationary Engineer

Class Code: 6712 – Exam Code: 4PB16

Department(s): California Highway Patrol
California Science Center
California State Lottery
Department of Developmental Services
Department of Education
Department of Forestry and Fire Protection
Department of General Services
Department of Motor Vehicles
Department of Public Health
Department of State Hospitals
Department of Transportation
Department of Veterans Affairs (CalVet)
State Compensation Insurance Fund

Opening Date: June 5, 2014
Final Filing Date: Continuous
Type of
Examination: Multi-Departmental Open
Salary: \$5,148.00-\$5,945.00

EEO

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right of family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding and related medical conditions), and sexual orientation.

DRUG-FREE STATEMENT

It is an objective of the State of California to achieve a drug-free State work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service, and the special trust placed in public servants.

WHO SHOULD APPLY?

Applicants who meet the Minimum Qualifications as stated on this bulletin may apply for and take this Written Examination and Experience Evaluation at any time.

Once you have taken the Training and Experience Evaluation, you may not retake it for twelve (12) months.

FILING INSTRUCTIONS

The online application filing process will consist of an online self-scheduling process. Test dates for various locations will be posted as new dates become available. The current test schedule is as follows:

*****SEATING IS LIMITED AND THE CAPACITY OF SEATING FILLS UP VERY QUICKLY. THE ABILITY TO SCHEDULE WILL NOT BE AVAILABLE ONCE THE TEST SITE IS COMPLETELY FILLED TO CAPACITY.*****

HOW TO APPLY:

To self-schedule yourself for a written test date, you must first establish a CalCareer Account.

Carefully follow the instructions below:

- 1) Go to website <https://jobs.ca.gov>
- 2) Find this Exam Bulletin "**Stationary Engineer**" in the "Search Exam and Job Vacancies" window.
- 3) Read this Exam Bulletin "**Stationary Engineer**" carefully for minimum qualifications, written test information; test dates and scheduling information.
- 4) Scroll to the bottom of this Exam Bulletin to the "Taking the Exam" header. Click here to apply for and to self-schedule the **Stationary Engineer** written exam" link.
- 5) Enter your User ID and Password, **OR** create a new **Account** if you do not currently have one.
- 6) Answer the "Equal Employment Opportunity", the "Personal Information", and the Minimum Qualifications" questions.
- 7) Review the available test dates and times and make your selection.
- 8) Print out two copies of the "Notice to Appear". You will need to bring a copy to the exam.

WHERE TO APPLY: Click on the link at the bottom of this bulletin.

TIPS

- 1) Save/Bookmark this bulletin page under your browser's favorites, so that you don't have to search for it again when you are about to schedule.
- 2) Keep in mind when signing-in that your User I.D. and Password are case sensitive.
- 3) Make sure you are using one of the following browsers:

Safari

Internet Explorer 8 9 or 10 (Recommended 9 or 10)

Google Chrome

Firefox

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special assistance or special testing arrangements, contact the California Department of Human Resources (CalHR), Examination Services at (866) 844-8671, or via the California Relay Service for the Deaf or Hard of Hearing at (800) 735-2929 from TTY Phones and (800) 735-2922 from voice phones. Additionally, please select the "Reasonable Accommodations" box during the self-scheduling process.

ELIGIBLE LIST INFORMATION

An open, merged eligible list will be established by the California Department of Human Resources for use by State departments listed above. The names of successful competitors will be merged onto the eligible list in order of final score regardless of test date. **Eligibility expires twenty-four (24) months after it is established.** Competitors must then retake the Written Examination to reestablish eligibility.

REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

Required Identification: Applicants must bring photo identification or two forms of signed identification to the written examination.

NOTE: All applicants must meet the education and/or experience requirements as stated on this examination bulletin as of the date the test is taken.

MINIMUM QUALIFICATIONS

EITHER 1

Completion of a recognized Apprenticeship For Stationary Engineers (Apprentices who are within six months of completing their apprenticeship program may be admitted to the examination, but must present evidence of completion prior to appointment.)

OR 2

Experience: Four years of experience performing duties which included the operation, maintenance and repair of boiler, heating, refrigeration, ventilation and power equipment of large commercial, industrial or institutional buildings including the operation of large commercial, industrial or institutional buildings including the operation and maintenance of air conditioning systems involving the use of automatic controls.

AND

Education: Completion of 700 hours of formalized technical instruction relating to Stationary Engineer in training offered by such established programs as:

Job Corps, Skills Center, ROP, Trades Schools, Military and JTPA (Joint Training Partnership Act).

(An Associate of Arts or Certificate in Mechanical Electrical Technology, which must have included at least 12 semester units of instruction in heating, ventilation and refrigeration systems involving the use of automatic controls may be substituted for the 700 hours of technical instruction). Students who are within six months of completing their degree will be admitted to the examination but they must present evidence of completion prior to appointment.

Two years of additional qualifying experience may be substituted for the required education.

POSITION DESCRIPTION

Under general direction to perform a variety of skilled work in the operation, maintenance and repair of boiler, heating, air conditioning, ventilating, lighting, power, water, water treatment, and other mechanical systems normally found in a State hospital, institution, large office building or complex of buildings, may instruct or lead other engineers, may instruct or lead resident workers, and do other related work.

Positions exists throughout the State of California.

EXAMINATION INFORMATION

The examination will consist solely of a multiple choice written test weighted 100%. Candidates must attain an overall minimum score of 70% in order to be placed on the eligible list.

Calculator Usage:

Hand-held calculators will be permitted and issued to you on the day of the written examination.

Note: Cell phones, palm pilots, and other electronic devices may not be used during the examination.

SCOPE OF EXAMINATION

WRITTEN TEST – WEIGHTED 100%

In addition to evaluating the competitors' relative abilities as demonstrated by quality and breadth of experience the examination has been developed to measure relative to job demands, each competitor's knowledge and abilities listed in the 'Knowledge and Abilities' section.

The examination for Stationary Engineer consists of the following **two test sections**:

| Test Section | Subject |
|--------------|-------------------------------|
| 1 | Mathematics |
| 2 | Stationary Engineer Knowledge |

KNOWLEDGE AND ABILITIES

Knowledge of:

1. Heating, ventilation, and air conditioning (HVAC) systems, to assess repair needs and determine the proper course of action to fix malfunctioning units.

2. Elements of a refrigeration system (e.g., compressors, condensers, evaporators, traps, pumps, valves) to assess repair needs and determine the proper course of action to fix malfunctioning units.
3. Building electric and pneumatic controls to assess building functions and determine the need for repair and replacement of action to fix malfunctioning units.
4. Building electric and pneumatic controls to assess building functions and determine the need for repair and/or replacement of building systems.
5. Electrical, water sewage, and other mechanical systems to assess repair needs and determine the proper course of action to fix malfunctioning units.
6. The principles and methods (e.g., sequences of installation, coordination with other trades, conduit bending wire pulling, rating of equipment) used in the installation, maintenance, and repair of electrical systems and components (e.g., wiring, switches, lighting, transformers, high voltage, switchboards, motor control centers) to accomplish work assignments.
7. Materials, tools, and equipment (e.g., cable reels, conduit benders stripping tools, voltage or current meters, wire or cable cutters) used in the installation, maintenance, and repair of electrical systems and components (e.g., wiring, switches, lighting, transformers, high voltage, switchboard, motor control centers, control modules, control boards) to accomplish work assignments.
8. Materials, tools, and equipment (e.g., cable reels, conduit benders, stripping tools, voltage or current meters, wire or cable cutters) used in the installation, maintenance, and repair of electrical systems and components (e.g., wiring, switches, lighting, transformers, high voltage, switchboard, motor control centers, control modules, control boards) to accomplish work assignments.
9. The principles and operations of electrical equipment (e.g., wiring, switches, lighting, transformers, switchboards, motor control centers, control modules, control boards) for the installation, maintenance, alteration and repair of electrical systems and components.
10. Organizational policies and procedures to maintain safety and security of facilities/departments, staff, and property.
11. Boilers and auxiliary boiler equipment to determine proper maintenance and care of facilities.
12. Gas and water distribution systems to assess functionality of building systems and determine when repairs are needed.
13. Steam distribution systems to assess functionality of building systems and determine when repairs are needed.
14. Building water and sewage systems to assess building functions and determine the need for repair of building systems.
15. Tools used by various trades (e.g., electrician, plumber, carpenter, stationary engineer) used in the maintenance and repair of building facilities.
16. Basic mathematical operations and calculations (e.g., addition, subtraction, multiplication, division, percentages, order of operations, fractions) to calculate labor, materials, and/or cost estimates for projects and work orders.

Ability to:

17. Perform basic mathematical computations (e.g., addition, subtraction, multiplication, division, ratios, percentages) to calculate labor, materials, and/or cost estimates for projects, work orders and additions.
18. Convert between units of measurement (e.g., temperature, energy, volume, mass) to calculate workloads and complete project work.
19. Determine the accuracy of various mathematical calculations (e.g., addition, subtraction, multiplication, division, ratios, percentages) to verify labor, materials, and/or cost estimates for projects, work orders and additions.

VETERANS' PREFERENCE

Veterans' Preference will be granted for this examination. Effective January 1, 2014, in accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, widow or widower of a veteran, or spouse of a 100 percent-disabled veteran achieves a passing score on an open examination, he or she

shall be ranked in the top rank of the resulting eligibility list. This section shall not apply to any veteran who has been dishonorably discharged or released.

CAREER CREDITS

Career Credits **will not** be added to the final score for this exam, because it does not meet the requirements to qualify for Career Credits.

CONTACT INFORMATION

If you have any questions concerning this examination bulletin, please contact:

California Department of Human Resources
Attn: Examination Services
1515 S Street, North Building, Suite 500
Sacramento, CA 95811

Phone: 1-866-844-8671
California Relay Service: 1-800-735-2929 (TTY), 1-800-735-2922 (Voice)

TTY is a Telecommunications Device for the Deaf, and is reachable only from phones equipped with a TTY Device.

GENERAL INFORMATION

Examination Locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. However, locations of interviews or performance evaluations may be limited or extended as conditions warrant.

Applications are available at www.jobs.ca.gov and local offices of the Employment Development Department.

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described on this bulletin will be rated against a predetermined job-related rating, and all candidates who pass will be ranked according to their scores.

The California Department of Human Resources reserves the right to revise the examination plan to better meet the needs of the service, should the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules, and all competitors will be notified.

Candidates needing special testing arrangements due to a disability must mark the appropriate box on the application and contact the testing department.

Hiring Interview Scope: In a hiring interview, in addition to the scope described in this bulletin, the panel will consider education, experience, personal development, personal traits, and fitness. In appraising experience, more weight may be given to the breadth and recency of pertinent experience, and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of his/her experience. Evaluation of a candidate's personal development will include consideration of his/her recognition of his/her own training needs; his/her plans for self-development; and the progress he/she has made in his/her efforts toward self-development. For more information, you may refer to the [classification specification](#).

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, the ability to work cooperatively with others, and a state of health

consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history, and fingerprinting may be required.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) service-wide promotional, 5) departmental open, and 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

Veterans' Preference: Effective January 1, 2014, in accordance with Government Codes 18973.1 and 18973.5, Veterans' Preference will be awarded as follows: 1) Any veteran, widow or widower of a veteran, or spouse of a 100 percent disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for Veterans' Preference. 2) An entrance examination is defined, under the law, as any open competitive examination. And 3) Veterans' Preference is not granted once a person achieves permanent civil service status.

Veteran status is verified by the California Department of Human Resources (CalHR). Directions to apply for Veterans' Preference are on the Veterans' Preference Application (Std. Form 1093), which is available at <https://jobs.ca.gov/Public/Jobs/Veterans.aspx>, and the Department of Veterans Affairs.

Bulletin Revision Date: 12/15/2016

TAKING THE EXAM

Click the link below to file for the Stationary Engineer exam.

Notice: The period of eligibility for this examination is twenty-four (24) months. The retake period is twelve (12) months.

[Click here to go to the Self scheduling system for the Stationary Engineer Written examination.](#)

Additionally, if you have a disability please select the "Reasonable Accommodations" box during the self-scheduling process.

Self-Scheduling Opens

Written Exam Date

Testing Location

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4, 20